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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/628,296

07/28/2003

Lian-Chao Li

P06331US01

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05/23/2008

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EXAMINER

KUMAR, VINOD

ART UNIT

PAPER NUMBER

1638

MAIL DATE

DELIVERY MODE

05/23/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<p align="center"><b>Advisory Action</b> <b>Before the Filing of an Appeal Brief</b></p>	<p><b>Application No.</b> 10/628,296</p>	<p><b>Applicant(s)</b> LI ET AL.</p>	
	<p><b>Examiner</b> VINOD KUMAR</p>	<p><b>Art Unit</b> 1638</p>	

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 05 May 2008 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.  
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☒ Applicant's reply has overcome the following rejection(s): See Continuation Sheet.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: None.  
Claim(s) objected to: None.  
Claim(s) rejected: 30,35,39-41 and 44-46.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.  
12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_  
13. ☐ Other: \_\_\_\_\_.

/Phuong T. Bui/  
Primary Examiner, Art Unit 1638

Continuation of 5. Applicant's reply has overcome the following rejection(s): 35 U.S.C. 112 1st paragraph (written description), and 2nd paragraphs.

Continuation of 11. does NOT place the application in condition for allowance because: Claims 30, 35, 39-41 and 44 remain, and newly added claims 45-46 are rejected under 35 USC 112, first paragraph, because the specification, while being enabling for a solution having pH 4.5 to 6.0, and comprising an isolated group 2/3 pollen allergen of SEQ ID NO: 2 (Lol p 3) with beta-expansin activity in the solution to expand monocot cell walls, does not reasonably provide enablement for a solution comprising any group 2/3 pollen allergen. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims for the reasons of record stated in the Office action mailed February 5, 2008. In the response filed in the paper of May 5, 2008, Applicant continues to make the same arguments that one of ordinary skill in the art would be able to identify and isolate group 2/3 allergens having  $\beta$ -expansin activity using standard techniques. Applicant cites declaration filed under 37 C.F.R. § 1.1.32 to support the argument that group 2/3 allergen from other plant species (e.g. maize) can be used to achieve the same results of cell wall expansion (response pgs 6-7). Applicant's arguments were fully considered but were deemed to be unpersuasive because the specification fails to provide guidance on a solution that would be useful for a monocot or dicot cell wall expansion comprising any group 2/3 pollen allergen (other than SEQ ID NO: 2), and wherein the solution pH is in the range of 4.5 to 6. Applicant is also reminded that the breadth of the claims encompass monocot and/or dicot cell wall, and the specification fails to provide guidance how any type of cell wall would be expanded by any group 2/3 pollen allergen having beta expansin activity. In the absence of adequate guidance, it is maintained that undue experimentation would have been required at the time the claimed invention was made to isolate and evaluate group 2/3 pollen allergens from any source for obtaining monocot or dicot cell wall expansion. See also *Amgen Inc. v. Chugai Pharmaceutical Co. Ltd.*, 18 USPQ2d 1016 at page 1027, where it is taught that the disclosure of a few gene sequences did not enable claims broadly drawn to any analog thereof.

Claims 30, 35, 39-41 and 44 remain, and newly added claims 45-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cosgrove (Nature, 407:321-326, Published September 21, 2000, Applicant's IDS), and further in view of McQueen-Mason et al. (Plant Physiol., 107:87-10, 1995, Applicant's IDS) and Ansari et al. (Biochemistry, 28:8665-8670, 1989) for the reasons of record stated in the Office action mailed February 5, 2008. In the response filed in the paper of May 5, 2008, Applicant argues that Cosgrove does not teach Group 2/3 pollen allergen. Applicant further argues that Cosgrove and McQueen-Mason et al. use cucumber cells in which beta expansin are inactive (response, pages 9-10). Applicant's arguments were fully considered but were deemed to be unpersuasive. Applicant is reminded that Cosgrove and McQueen-Mason et al. clearly provide an assay for using expansins in cell wall expansion. Cosgrove very clearly teaches use of group 2 pollen allergen in cell wall expansion. It is thus maintained that at the time the invention was made, it would have been prima facie obvious and within the scope of an ordinary skill in the art to modify Cosgrove or McQueen-Mason et al. solution by replacing expansins with a group 2/3 pollen allergen as taught by Cosgrove or Ansari et al. to study the role of group 2/3 pollen allergen in cell wall expansion. It is further maintained that given that Cosgrove suggests that group 2 pollen allergen may be involved in cell wall loosening because of their homology to  $\beta$ -expansins and secretion to the cell wall by grass pollen (last paragraph bridging pages 324 and 325), one of ordinary skill in the art would have been motivated to replace expansins of the solution taught by Cosgrove or McQueen-Mason et al. with a group 2/3 pollen allergen of Ansari et al.. Given that group 2/3 pollen allergen are isolated from grasses, it would have been obvious that one of ordinary skill in the art would have used a grass (monocot) cell wall in the assay to understand the role of group 2/3 pollen allergen in grass cell wall expansion with a reasonable expectation of success. It is further maintained that one of the ordinary skill in the art would have obviously realized that  $\beta$ -expansins activity of group 2/3 pollen allergen would not have been affected by DTT because the group 2/3 pollen allergen of SEQ ID NO: 2 as taught by Ansari et al. lacks cysteine residues. Thus, it is maintained that the claimed invention as a whole is prima facie obvious over the combined teachings of the prior art.